

REMARKS

Claims 1 - 25 are pending in the present application. By this Amendment, claims 1 and 24 have been amended. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated April 5, 2006.

Allowable Subject Matter:

At the outset, applicants gratefully acknowledge that claims 5-12, 15-18 and 25 have been allowed, as indicated in item 9 of the Action.

In addition, applicants gratefully acknowledge that claims 4, 12 and 20 would be allowable if amended to include the features of their respective base and intervening claims as indicated in item 10 of the Action, that claims 19-23 would be allowable if rewritten to depend from claims 5 or 15 as indicated in item 11 of the Action, and that claim 24 would be allowable if amended to overcome a minor objection as indicated in item 12 of the Action.

However, for at the reasons set forth below, it is submitted that all of claims 1-25 are allowable.

Claim Objections:

Claim 24 stand objected to for the specific reasons set forth in item 5 of the Action.

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However, it is submitted that claim 24 has been amended to overcome this objection.
Accordingly, withdrawal of this objection is respectfully requested.

As to the Merits:

As to the merits of this case, the Examiner maintains the following rejections:

- 1) claims 1-3, 13, 21, 22 and 23 stand rejected under 35 USC 103(a) as being unpatentable over Suzuki (U.S. Patent NO. 6,584,115) in view of Keskitalo (U.S. Patent No. 6,091,788); and
- 2) claim 19 stands rejected under 35 USC 103(a) as being unpatentable over Suzuki in view of Keskitalo and further in view of Ishii et al. (U.S. Patent No. 6,222,498).

Each of these rejections is respectfully requested.

With regard to applicants' argument that while the ICU 12a of Fig 5 of Suzuki may include an integrator 23, the integrator 23 does not perform the function of extracting signal components corresponding to a plurality of users based on a signal output from a signal processing means, as called for in claim 1, the Examiner asserts in lines 14-17 of page 2 that:

the integrator 23 of Suzuki (Figure 5) operates in conjunction with multiplier 22 which multiplies a received signal by a spreading code Ca to provide a correlation value (col. 2,

lines 46-52), where the spreading code used in multiplier 22 corresponds to the code used to spread a user signal to be transmitted (col. 1, lines 20-22).

However, it is respectfully submitted that neither a correlation value or a spreading code constitute signal components that are extracted corresponding to a plurality of users based on a signal output from a signal processing means.

Further, with regard to applicants' argument that while the ICU 12a of Fig 5 of Suzuki may include an estimator 24, the estimator 24 fails to estimate parameter information related to a relation between extracted signal components and the output signal from the signal processing means, since, as discussed above, integrator 23 fails to extract signal components and the estimator 24 does not receive an output signal from the signal processing means, the Examiner argues in page 3 that "the claim does not require that the estimator receive an output signal from the signal processing means," and estimator 24 determines a transmission path fading vector, which is broadly considered to be related to the relation between the extracted signal components and the output signals of the signal processing means.

In view of the Examiner's comments, independent claim 1 has been amended to include the feature that the estimating means actual receives the output signal from the signal processing means.

Further, with regard to applicants' argument that the quality comparison controller 32 of Suzuki does not determine whether the extracted signal components include a demodulation error or not, as called for in claim 1, the Examiner argues in the bottom paragraph on page 3 of the action that the control signal 15 output from the quality comparison controller 32 is consider to be an indication of whether there was a demodulation error or not.

However, it is respectfully submitted that the Examiner is clearly mis-characterizing the teaching of Suzuki, since while the quality comparison controller 32 may compare the Eb/No measured by the Eb/No measuring unit 34 with the Eb/No of the received signal 1 which has been supplied as the reception quality signal 14a, and outputs a control signal 15₃ if the Eb/No measured by the Eb/No measuring unit 34 is more degraded than the Eb/No of the received signal 1, as determined from the result of the comparison, Suzuki is completely silent with regard to using the control signal 15 to determine whether the extracted signal components include a demodulation error or not.

Finally, with regard to applicants' argument that the subtractor 54 and adder 57 disclosed by Suzuki fails to constitute *operating means for subtracting, from the signal output from said signal processing means, said extracted signal component determined by said first error determining means not to include any demodulation error, in consideration of corresponding said parameter information*, as called for in claim 1, the Examiner fails to provide a persuasive response.

Instead, the Examiner argues in page 4 that:

However, as stated in column 12, lines 16-22, interference cancellation is only turned off if the reception quality becomes more degraded after interference cancellation by a respective ICU. Thus, if the control signal indicates that the reception quality is not degraded, then the interference cancellation performed by the ICU will not be turned off (via block 30 – see Fig. 5), and the subtractor 54 will subtract the extracted signal component output from the ICU not turned off.

However, the Examiner has already argued that the integrator 23 of Suzuki (Figure 5) operates in conjunction with multiplier 22 to extract signal components from a received signal. Therefore, it is submitted that the Examiner has failed to establish that the signals extracted from by the multiplier 22 and integrator 23 are subtracted by subtractor 54.

Moreover, it is submitted that the secondary reference of Keskitalo fails to disclose the above-note drawbacks and deficiencies of Suzuki with regard to the features of claim 1 concerning *a plurality of first signal extracting means for extracting signal components corresponding to said plurality of users, respectively, based on a signal output from said signal processing means; a plurality of first estimating means for estimating parameter information related to relation between the signal components extracted by said first signal extracting means and the signal output from said signal processing means; a plurality of first error determining means for determining whether the signal components corresponding to the plurality of users extracted by said first signal extracting means include a demodulation error or not, respectively; and first operating means for subtracting, from the signal output from said signal processing*

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means, said extracted signal component determined by said first error determining means not to include any demodulation error, in consideration of corresponding said parameter information.

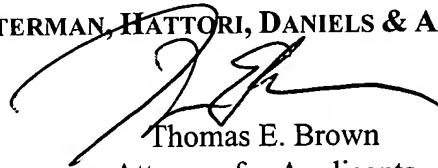
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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